CHEETAH

User Manual

English

Please read through carefully before riding your new Cheetah

THANKYOU

Thankyou for purchasing the Cheetah! We know you'll love it, and with some care it should last for a very long time. Please read through this manual carefully before operating the bike.

SAFETY

Helmet:

Always wear an approved helmet when riding your Dillenger electric bike and follow the helmet manufacturer's instructions for fit, use and care of your helmet.

Mechanical Safety Check:

Routinely check the condition of your bike before every ride. Make sure no nuts or bolts are loose. Perform a visual inspection of the whole bicycle before every ride. Make sure tires are correctly inflated within the range given on the tyre sidewall. Check the brakes for proper operation.

Your First Ride:

When you buckle on your helmet and go for your first ride, be sure to pick an area away from cars, other cyclists, obstacles or other hazards to become familiar with the controls, features and performance of your new electric bike. We suggest you start riding with the electric motor turned off until you are comfortable. Then, turn the key to turn the motor on.

PLEASE NOTE

It's your responsibility to familiarise yourself with the laws of the areas where you ride and to comply with all applicable laws.

ITEM CHECK LIST

Missing an item? Incase it came loose in transit, please check all foam inserts, boxes and a the bottom of the main bike box.

Pedals

Located inside their own packaging within the bike box.

Charger

Located inside the same box as the pedals.

Tools

In a box with the charger and pedals

Folding Joint

Packaged individually or inserted into the frame

Keys

Zip tied to the handlebars

Saddle

Packaged individually

- Before you set up your bike, it can be helpful to lay everything out first and make sure all the parts are there.
- Something damaged or broken? Snap some photos and send them along to Dillenger and we'll sort it out for you.
- Something missing? Double check the box, even under the flaps. Those small parts can be sneaky. If you still can't find it let us know and we'll get onto it.

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QUICK START GUIDE

1. Remove Bike

Take your bike out of its box. Check the box for the additional parts such as chargers, or any parts that may have come loose in shipping. Remove the protective packaging and any zip ties that secure the bike for transit. Keep track of all the parts that you remove from the box and bike. – Remove the battery and put it on charge.

2. Handlebars & Wheels

Lift the front of the bike up and offer the wheel up to the bike. Seat the axle into the front dropouts and secure the wheel in place by doing up the axle nuts. The handlebar folding-joint is secured by an Allen bolt which is hidden when the handlebar is fully upright position. To tighten this, align the handlebars so that they are straight, fold the joint to the side and tighten the bolt.

3. Saddle & Pedals

Loosen the seat high adjustment bolt on the frame and insert the seat tube. Adjust it to your desired height and tighten. The angle of the seat can be changed to suit your preference. Please check that the bolts are tight before riding. The pedals will need to be installed before you can ride. They have “L” and “R” stamped into the end of the threaded part, this refers to the side of the bike that they fit. The right hand pedal does up clockwise, whereas the left hand pedal does up anti-clockwise.

4. Pre Ride Checks

You’re nearly there. Check that the tyres are pumped up to the pressure recommended on the tyre side wall. Check that the brakes are tight, centred and do not rub. Go over all nuts and bolts and make sure they are done up.

5. Ride!

Once the battery is fully charged lock it into the frame and turn it on with the key at the top of the battery. You’re now ready to go!

PARTS OF THE BIKE

Below are some of the main components of the Dillenger Cheetah

SAFETY WARNING

Safety First!

Always wear an approved helmet when riding your Dillenger electric bike and follow the helmet manufacturer's instructions for fit, use and care of your helmet.

Mechanical Safety Check

Routinely check the condition of your bike before every ride. Make sure no nuts, bolts or spokes are loose. Perform a visual inspection of the whole bicycle before every ride. Make sure tires are correctly inflated within the range given on the tyre sidewall. Check the brakes for proper operation.

Your First Ride

When you buckle on your helmet and go for your first ride, be sure to pick an area away from cars, other cyclists, obstacles or other hazards to become familiar with the controls, features and performance of your new electric bike. We suggest you start riding with the electric motor turned off until you are comfortable, before using the electric assistance.

Preventing Injury or Equipment Damage

The instructions provided in this document are a guide only. The specific components received may vary slightly. If you are in doubt about any aspect of the assembly of the bike see help from a skilled bicycle mechanic.

SETUP

Before you can ride your new bike, there are several thing to check over to make sure that it is safe to ride.

Seat

It is important to be comfortable while riding, with this in mind the Dillenger Cheetah is fitted with a plush double-sprung saddle. The height of the saddle can be adjusted by undoing the fastening bolt, moving the seat to the desired height, then re-fastening the bolt.

The angle of the saddle can also be adjusted. To do this undo the nuts under the saddle, rotate the saddle to the desired angle, re-tighten the nuts. It is recommended to check that these nuts are tight before riding.

Fault	Solution
My saddle is at an uncomfortable angle	Undo the adjusting nuts, adjust the angle of the saddle, and retighten the nuts.
My saddle is loose and turns when I ride	Height adjustment bolt is too loose, tighten it.
My saddle is loose and turns when I ride	Saddle adjustment nuts are loose, tighten them.

Installing the Front Wheel

- Place the front wheel in the front fork drop out slots and ensure the wheel fits correctly.
- Ensure that the locking tabs are correctly mounted into the holes in the forks.
- Fully tighten both nuts and ensure the wheel sits straight in the forks.

Handlebars

The handlebars on the Dillenger Cheetah are adjustable for height and foldable to reduce the stored size.

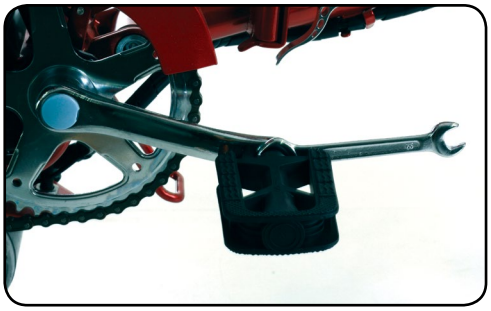
Depending on how the bikes were packed the bike may arrive without the handlebar folding joint inserted into the frame. Fitting it is very simple. When in the upright position, the tightening bolt for the folding joint is hidden. To tighten the bolt, the handlebars have to be folded down. The angle at which the joint sits is designed to be on an angle. This is so that when folded, the handlebars sit in line with the frame, rather than across to save space.
The height of the handlebar is easily adju
sted. To change the height, open the quick-release clamp; change the handlebars to the desired height, then close the quick-release clamp to set the desired height.

Fault	Solution
My handlebars just spin and do not turn the front wheel	Fold the handlebars down and tighten the Allen bolt, this locks the handlebars to the front forks.
My handlebars are loose and wobbly	Check the height adjusting quick release clamp is tight. To do this open the quick release, tighten the round bolt by one turn, then close the clamp again. Repeat if one turn is not enough.

Pedals

Pay very close attention when installing the pedals as each pedal only fits on one side.

- Stamped into the end of each pedal is either an “L” or an “R”. The threads on one side are opposite to the other to prevent them coming undone when riding.
- The pedal marked “R” goes on the right hand side of the bike (this is the same as your right hand side if you were riding the bike).
- The right hand pedal goes in CLOCKWISE like a normal screw.
- The left hand pedal has to be done up ANTI-CLOCKWISE.
- Thread the pedals in as far as you can by hand before using a spanner.



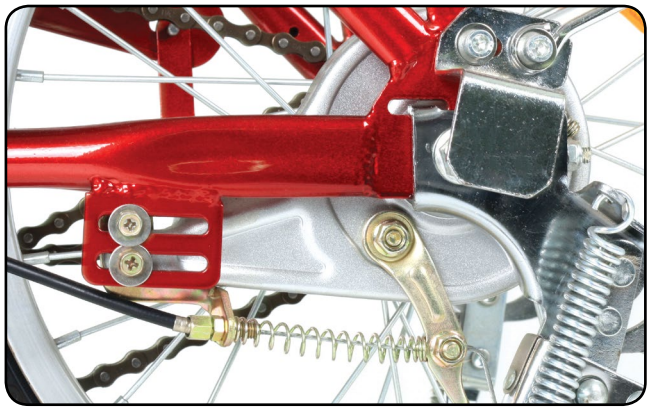
Brakes

Front V-Brake

- To adjust the brakes, loosen the clamp that holds the brake cable with an Allen key.
- Hold each arm in towards the rim of the wheel and pull the loose brake cable through the clamp.
- Once you have pulled the cable tight, use an Allen key to tighten the clamp. This will hold the cable in place. Make sure that the bolt is tightly holding the brake cable before you ride!
- The side to side movement of the brake arms can also be ajusted by tightening or releasing the spring tension centring screw.
- If you notice that the braking efficiency diminishes it might be that your brake pads are worn down. If there are no groves left on the pad, it needs to be replaced.
- Rim brakes can also cause wear of the rims. This effect is speeded up by sand or street dirt, for instance.
- Bear in mind that V-brake type rim brakes have a very powerful braking action. Therefore, never use the front brake only. Always use the front as well as the rear brake!

Rear Drum Brake

- Over time, drum brakes also wear. You will notice this by the fact that the brake levers will almost be able to touch the handlebar. Usually, readjusting the brakes suffices, but if there is excessive travel undo the nut on the rear brake and pull through any slack.
- With the cable-operated drum brake, turn the adjusting nut until the brake lining just touches the drum barrel. If when spun, the wheel stops quickly, then the brake is over tightened. In this case you should unscrew the nut one or two turns until the wheel keeps spinning without interruptions.

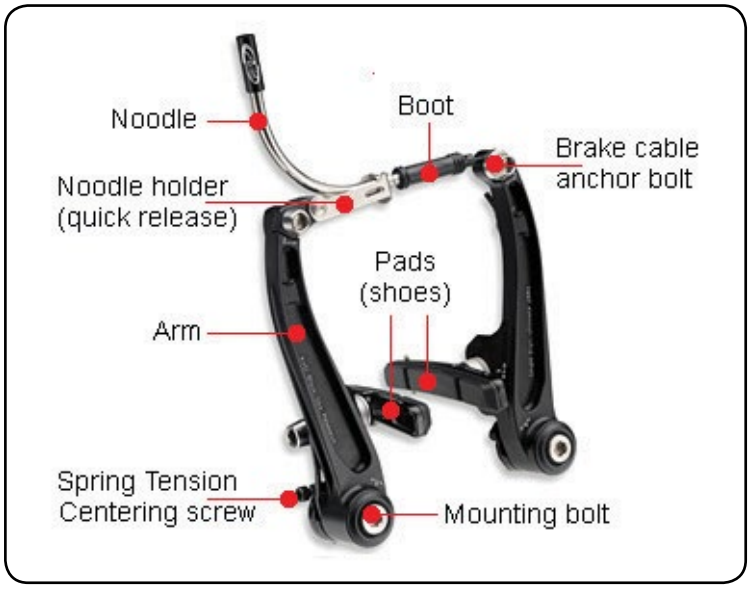


Fault	Solution
The wheels do not spin freely	Check that the brakes are adjusted correctly and are not draging.
My brakes squeak when I use them	The brakes could be worn down and may need replacement, or there could be contaminants on the braking surface.

Removing the Front Wheel

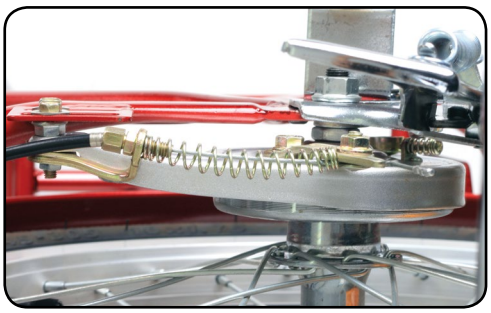
Removing the front wheel is quite straight forward.

- Undo the axle nuts and remove the safety washers. The washers have a small hook that holds the axle into the drop-outs should the axle nuts become loose.
- To get the tyre past the brakes, the V-brake cable can be released by pulling the cable guide or “noodle” out of the cable bridge or “noodle holder”.
- Don’t forget to put the noodle back before you go for a ride.



Removing the Rear Wheel

Removing the rear wheel is slightly more involved than the front wheel. Because of this Dillenger highly recommends riding with the correct pressures in the tyres as it greatly reduces the risk of getting a puncture. If you do suffer a puncture it can be easier to repair the puncture without removing the rear wheel.



- To remove the rear wheel, begin by removing the battery and turn the bike over so it is resting on the seat and the handlebars. You may need someone to hold the bike steady as the bike can be unstable when upside own depending on the height of the seat and handlebars.
- With the bike inverted, take off the axle nuts and remove the stand. Then remove the bolts that hold the drum brake housing to the frame. Pay close attention to the order of the housing, cable holder, nuts, bolts and washers.
- Loosen the pedal chain tensioner and motor chain tensioner and move both chains to the side.
- With the chains clear, slide the rear wheel out of the dropouts. The tire may need to be deflated to clear the rear mud guard.
- Your rear wheel should now be free.
- Installation is the reverse of removal.

Tyres

The inflation pressure of the tyres is very important and has a big impact on the performance and range of any electric bike. Before riding check that the pressure is in-between the recommended pressure written on the sidewall of the tyre. If the tyre is bald or the tread has worn down, replace the tyre immediately as you could get a puncture or loose traction and fall.

Fault	Solution
My tyre keeps going flat	Check the valve is not leaking. Check the tube for leaks. You may have a puncture.

Wheels

Check that your wheels are running true and free. If a wheel is buckled or warped it should be fixed as soon as possible. Most bike shops should be able to do this. If you have a broken spoke it should be replaced immediately as it can cause many more spokes to break and can potentially damage the rim.

Fault	Solution
The wheels wobble when I spin them	The spokes need to be tightened and the wheel needs to be trued, you might need to get a bike shop to do this.

Repairing a Puncture

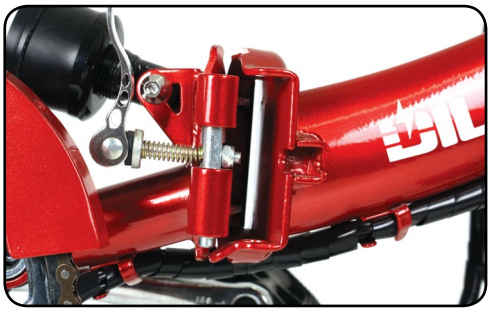
If your tyre is losing air, first check to see if the valve is broken. You do this by moistening the valve opening. If bubbles form, the valve is leaking. The cause of this can be that some dirt has accumulated beneath the valve. If the valve is still leaking after cleaning, it must be replaced. If the valve is functioning properly but the tyre still loses air, then unfortunately you have a puncture. With the proper repair tools, such as the Dillenger repair toolkit this can be fixed swiftly in 6 steps. In some cases the tube can be repaired without removing the wheel from the bike.

- Check the tyre. Maybe you'll notice a nail or a piece of glass, for instance. If so, then you know where the puncture is located. Remove the battery and then turn the bicycle upside down. Make sure not to damage the handlebar and seat when you do this. Then remove the valve cap.
- Press the edge of the tyre towards the middle of the rim and insert the first tyre lever between the tyre and the rim. Be careful not to catch the tube between the lever and the tyre or you will have another puncture. Insert the second tyre lever between the tyre and the rim about a hand's breadth away from the first lever and move the tyre over the lip of the rim. Now work the free edge of the tyre around the rim.
- Now push out the valve stem and remove the tube from within the tyre. Inflate the tube. If the leak in the tube is a big one, you will immediately hear air escaping. A small leak can be detected by placing the tube in a bucket of water.
- If you have located the puncture, mark the spot on the tube using a ballpoint pen. Now you can empty the tube completely and dry it. Clean the puncture area well with a piece of emery cloth. Then smear on a not-too-thick layer of rubber solution and let it dry for a few minutes, following to the manufacturer's instructions. Subsequently you can stick a patch on it, which you should press firmly onto the tube.
- To check if the puncture has been repaired, inflate the tube and hold it under water. If the leaking has stopped, put the tube back on the rim. Be sure to check that the rim tape is properly located in the middle of the rim, because it protects the tube from the spokes. Push the valve stem back through the hole and give the tube a few pumps of air. Now carefully check the inside of the tyre for sharp objects that might cause leakage. If you slowly keep moving the wheel around it's easy to place the tube around the wheel and inside the tyre.
- Subsequently you can push the tyre back over the rim, starting at the valve. Push the valve stem in as far as possible, ensuring that the tube will be positioned correctly. This way you can push the entire tyre back over the rim while making a tilting movement with the wrist area of your palms. You might need to apply quite a lot of force, but don't be tempted to use a tyre lever for the last section. There is a high chance that you will poke a hole in the tube by doing so, meaning that you would have to start the process all over again. Also check that no part of the tube is caught between the tyre and the rim. If this is not the case, inflate the tyre. Finally, you just have to screw the dust cap back on and you are ready to ride off.

Folding the Bike

The Dillenger Cheetah conveniently folds so that it can be put in the boot of a car, taken on a bus or train, or taken away in a caravan. Folding takes only seconds and can be completed in a few easy steps.

- Reduce the height of the handlebars
- Fold the handlebars down, undo the quick release lever, depress the secondry restraint pin and fold them to side
- Put the seat all the way down (optional, but reduces the size when folded)
- Undo the frame folding joint quick release lever and move it to the side
- Lift the lever vertically to release the locking pin, the frame is now free to fold

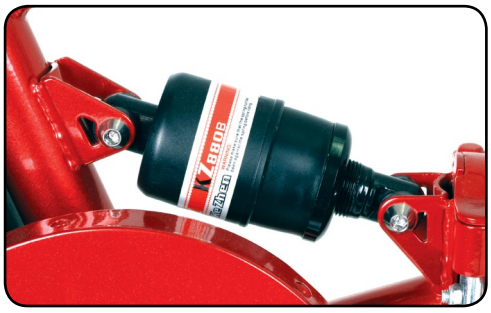


If you plan to lift the bike in and out of the car, it can be easier to manoeuvre the bike by removing the battery first as it will reduce the overall weight of the bike.

Fault	Solution
My handlebars won't fold down	Check that the quick release lever is moved out of the way and that the pin that acts as a secondary restraint is pushed in.
My frame won't fold	Check that the quick release lever is moved out of the way and then make sure that you lift the quick release mechanism vertically, then fold the frame. There is a secondary pin which acts as a safety device to make sure that the frame cannot unfold while riding.
My bike won't fold all the way together	When folding the bike, the front wheel can sit a couple of different ways. Try folding the bike with the wheel on the other side. Be careful however not to damage the headlight or the wiring by forcing the handlebars/front wheel around too far.

Suspension

The suspension on the Cheetah has a small amount of adjustment. The stiffness of the shock can be adjusted by winding the lower part of the shock in or out. This will also have a small impact in the ground clearance and seat height.



Fault	Solution
The suspension is too soft	Tighten the shock and make sure all the bolts are tight.

Lights

The Cheetah is fitted with a built in headlight. This unit is powered off of the main battery and is switched on an off by a button found next to the left hand handlebar grip. Press the button to turn the light on, and press it again to turn the light off. The light will also turn off when the battery switch is turned off. The rear of the bike is fitted with a red reflector. If you intend on riding at night it is highly recommended to fit a rear light.

Fault	Solution
The light won't turn on	Check that the battery is turned on.

PLEASE NOTE

When riding at night it's your responsibility to familiarise yourself with the laws of the areas where you ride and to comply with all applicable laws.

Drivetrain

The Cheetah is fitted with two chains, the pedal chain and the motor chain. There is a specific way to tighten each chain. Dillenger recommends that the pedal chain tension is set first.
It is essential that the chain has the correct tension. If the chain is too tight, it will require extra force to get the bike moving. In addition, you run the risk of damaging the motor, wheel bearings, chainwheels or bottom bracket bearings. If the chain is too loose it may come off.

The way that the chains are arranged means that the adjustment of the pedal chain affects the tension on the motor chain. The adjustment of the motor chain however, does not affect the pedal chain. For this reason, **Dillenger recommends setting the pedal chain tension first.**

Pedal chain to tighten the pedal chain, undo the axle nuts a little so that the axle is free to move, and then do the same for the drum brake housing, you can now use the chain tensioner to either tighten or slacken the chain. Tighten is so that it is firm but not drum-tight. You should be able to move it up and down 10-15mm in total, so 5mm up then 5mm down. Also make sure that you adjust the non-chain side to keep the rear wheel straight in the frame.

Motor Chain With the pedal chain tension set, the motor chain can now be adjusted. This is a simple adjustment. To start, undo the lower of the two nuts as this will release the tension in the system.

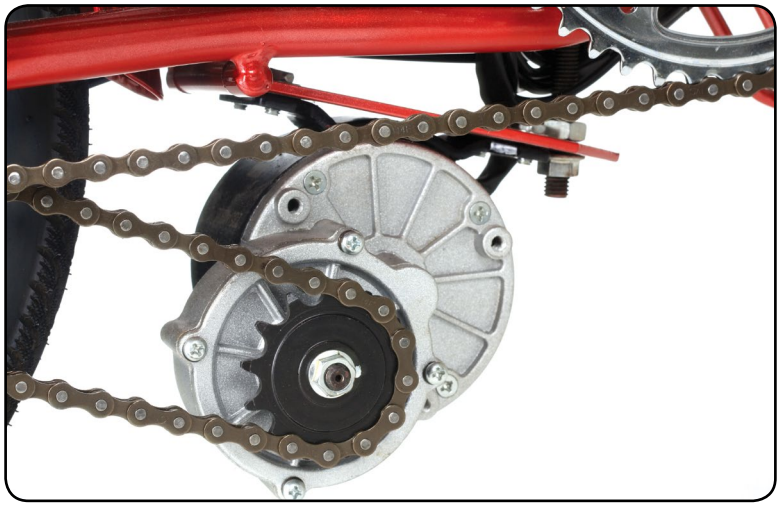
Fault	Solution
Chain is too loose	Move the top nut up towards the bottom of the bike further than you need, then move the lower nut up until the chain tension you need is achieved. Once you have the chain tension set, bring the top nut back down and tighten it to the plate. Tightening the top nut will then lock the motor plate in position.
Chain is too tight	If the chain is too tight then move the lower nut down until the desired chain tension is achieved. Lock this in position by tightening the top nut in place.

Motor

The motor uses a reduction drive gear box to increase the torque and provide good hill-climbing performance.

The motor can be activated by two means: A twist throttle is provided on the handlebar, turning the throttle will activate the motor like a motorcycle.

A pedal assist sensor is also fitted to the chainwheel, so when you pedal the motor activates and assists you.

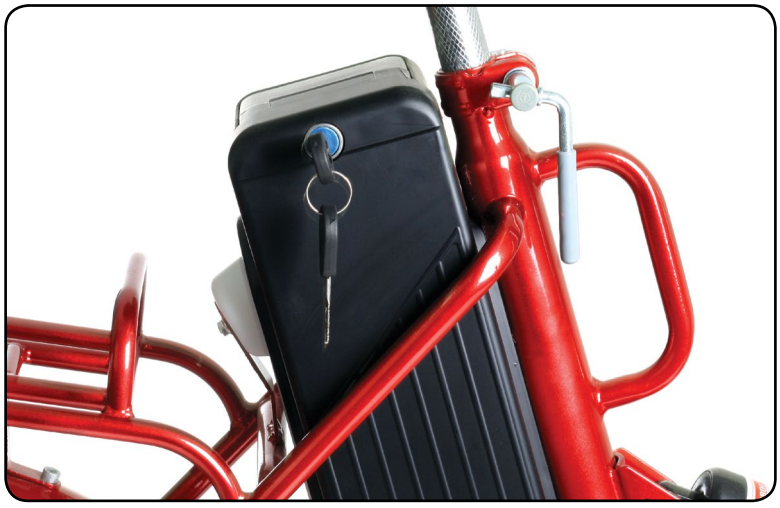


Maintenance

This unit is pre-filled with grease for lubrication which should last many years under normal operating conditions. As a precaution, Dillenger recommends cleaning out the old grease and replacing it every two years.

Fault	Solution
Chain keeps falling off	Check that the chain is tight. Check that the motor plate is straight, it could have been damaged by impact with a rock or kerb Check that the nut holding the sprocket on is tight.
Motor is making strange noises	Check that the motor chain is not overtightened.

Battery



The battery and drive system on the Dillenger Cheetah is designed to be robust and reliable and provide years of service. The system is also designed to be easy to use. To turn the system on, insert the key into the top of the battery and turn it clockwise. The lights on the handlebar display will light up and the motor will now work when activated.
When the battery is full, 3 lights will show on the handle bar display. As the charge in the battery is consumed, the number of lights will reduce until only the lower red light is showing. If the red light is showing then the battery is getting close to empty and will need to be recharged very soon. Leaving the battery empty for an extended period of time can reduce its capacity so it should be recharged as soon as you have finished riding.

Removing the battery

The battery can also be locked into the frame using the key that turns it on and off. Turn it anticlockwise to unlock, clockwise to lock.
The seat can be moved out the way by lifting the lever under the saddle, this will allow the seat to hinge forward and out of the way.
The battery can now be lifted out by pulling up on the battery carry handle. When new, they can be quite stiff to remove. If so, double check that the key is turned anti-clockwise and try again.

Inserting the battery

Before inserting the battery, make sure it is turned off and that the lock on the bike is undone (anti-clockwise).
Lift the seat using the lever under the saddle.
Insert the battery, making sure the battery slide lines up with the grooved section on the rear face of the battery. Then gently lower the battery into position, making sure that the battery seats all the way into the bike.

PLEASE NOTE

Even with the battery locked in and turned off, the bike should be locked using a high quality bike lock.

Charging

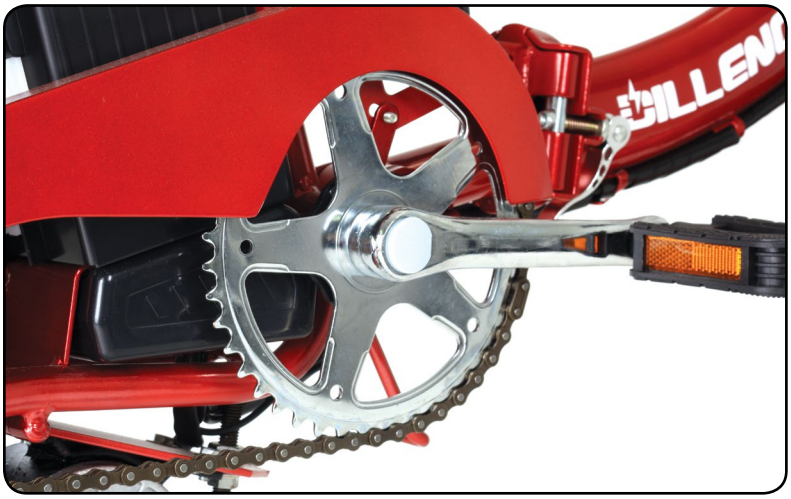
The battery on the Cheetah is comprised of sealed lead-acid batteries. The cells used are can be inverted, laid down and can be left or charged in any orientation. The battery can also be charged in the bike, or it can be removed and charged off the bike.
To charge, lift the carry handle to reveal the charge port. Plug the charger plug into the port, then plug the charger into the wall socket and turn it on.
When charging the charger light shows red.
Once charged the light changes to green.
If completely flat, a charge can take 8-10 hours.
The batteries do not get a memory effect, so the battery can be “topped off” after short rides without damaging the battery.
Dillenger recommends the battery be charged regularly. If the bike is stored for a long period the battery should be charged every few weeks. Failure to do so could see the battery loose charge which if left for a long period, can dramatically reduce the capacity of the battery.

PLEASE NOTE

Only charge the batteries with the specified charger. Using a different charger could damage the batteries.

Fault	Solution
Battery doesn’t turn on	Check that the locking pin is retracted (key turned anti-clockwise) and that the battery is seated all the way into the bike.
Charger light stays red for a long time	If the battery charger shows a red light after more than 12 hours on charge, disconnect the charger and contact Dillenger, you may have a faulty charger.
Motor runs but is slow	Check that the chain is not overtightened and that the battery is charging properly.

Bottom Bracket, Cranks and Pedals



The pedals of your bike are attached via cranks to the bottom bracket; these bearings are lubricated by grease. Most of the time the grease only needs to be changed every few years, however with frequent riding it may need to be cleaned out and replaced more often.

Though these items components are very low maintenance it's worth it to pay some attention to these parts once in a while.

The cranks have to be fixed tightly, for instance, and shouldn't have any play. If they do, you will hear an annoying cracking sound during cycling or feel the play. More seriously, riding with a loose crank can also damage it irreparably. It's OK for the pedal bearings to have a bit of play. This is because the pedal axle will bend a little over time as a result of the force exerted on it. If the pedals themselves or the cranks are bent or damaged, for instance following a fall, they need to be replaced. Bending them back to their original shape can change the structure of the material in a way that might make them break suddenly at a later stage.

Fault	Solution
There is a clunking when I pedal	Check that the pedal cranks are tight and that the pedals are tight too.
Something feels loose when I pedal	Check that everything it tight.

Maintenance of the Frame

Proper maintenance prolongs the service life of your new bike. Therefore it is wise to regularly check it or have it checked and keep it clean. It’s best to use a brush that is not too stiff. With that you can clean off the worst of the dirt. Beware of scratches, though! With a clean cloth you can then remove the rest of the dirt.

Paintwork

Care should be taken when cleaning the paintwork. For instance, do not use alkalis such as ammonia or soda or products that contain fluorides, chlorides or sulphates. These may damage the coating and therefore result in reduced gloss. Minor damage to the paintwork can best be touched up with a paint pencil.

Chromed parts

With regard to chromed parts, such as the handlebar, hubs, cranks or seat post, it is recommended that you occasionally apply a thin layer of acid-free Vaseline on them. This prevents these components from rusting.

SPECIFICATIONS

General	
Model (year)	Cheetah (2015)
Designation	Folding Electric Bike
Main Use	Commuting and recreation
Nominal Power	250W
Cruise Speed	20km/h
Max Speed	20km/h
Max Rider Weight	120kg
Max Range	45km
Battery	
Battery Chemistry	Sealed Lead Acid (dry cell)
Nominal Battery Voltage	24V
Weight	
Total Weight - No Battery	18.8kg
Battery Weight	9.2kg
Total Weight	28kg
Dimensions	
Length	137cm
Width	44cm
Height	100cm
Wheel Base	95cm
Wheel Size	16"
Ground to Max Seat Range	78-94cm
Folded Length	60cm
Folded Width	75cm
Folded Height	44cm

CONTACT US

Dillenger HQ

3/13 Olympic Circuit
Southport
QLD 4215
AUSTRALIA
Tel.: +617 5532 9235
dillenger.zendesk.com
www.dillengerelectricbikes.com

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